



United States Department of the Interior

BUREAU OF RECLAMATION
Washington, D.C. 20240

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MEMORANDUM

To: Secretary of the Interior

JUL 17 2001

Through: Amy Holley, Acting Chief of Staff *Amy Holley*
Office of the Assistant Secretary - Water and Science

From: Stephen V. Magnussen *Stephen V. Magnussen*
Secretary's Designee and Chairman, Glen Canyon Dam Adaptive Management Program

Subject: Report and Recommendations to the Secretary of the Interior

The Adaptive Management Work Group met April 12-13, 2001 to discuss actions taken to meet its responsibilities under the Federal Advisory Committee Act, the Grand Canyon Protection Act, and Glen Canyon Dam Environmental Impact Statement Record of Decision. Although the group did not make any formal recommendations to the Secretary of the Interior, this memo summarizes important discussions by the group.

Current Power and Water Supply Issues

The power shortage in California and accompanying extraordinary energy and capacity prices is now coupled with drought conditions in the Colorado River basin. As a result, public power customers who receive power from Glen Canyon Dam are now receiving a reduced allocation of power from the dam and are facing much higher than normal purchase costs for additional power. They are urging relief from any actions that would reduce the production of energy from the dam. This would include experimental flow releases such as the FY 2000 low steady summer flow test and power plant bypasses as in the 1996 beach habitat building flow. Conversely, recent Congressional hearings and proposed legislation to potentially eliminate power plant operational constraints at Glen Canyon Dam have also raised concern among some Adaptive Management Work Group members that if these are enacted, the Grand Canyon Protection Act intent of protecting downstream resources might not be met. It is the sense of the Adaptive Management Work Group that operations of the dam should continue to abide by the constraints contained in the Record of Decision, and that extraordinary dam releases for research purposes should be deferred.

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Emergency responses by Glen Canyon Dam to assist California power interests have occurred on several occasions, raising on-peak releases from 15,000 cfs up to 21,000 cfs, with some resulting adverse impacts to the resources of Grand Canyon National Park (increased sediment erosion and increased safety risk to downstream rafters). Due to the intermittent nature of the emergencies, the identified impacts are largely anecdotal, but the monitoring program will attempt to quantify changes in the downstream resources. It is important to note that annual release volumes from Glen Canyon Dam are constrained by Compact and Operating Criteria and drought conditions on the Colorado River this year significantly limit the opportunity to make releases for power emergencies.

AMP Strategic Plan and Budget Issues

The Adaptive Management Program continues to work on preparation of the strategic plan, which will guide the Adaptive Management Program scientific activities for the next 5 years. The Adaptive Management Work Group agreed on a vision and mission statement, and basic principles, goals, and management objectives for the ecosystem downstream of Glen Canyon Dam and is expected to conclude the plan this year. Unanswered scientific questions and information needs will guide future research activities.

The annual Adaptive Management Program budget is discussed on an ongoing basis. Expected budget shortfalls are an area of concern among Adaptive Management Work Group members from the perspective of not being able to conduct necessary scientific investigation and experimentation. Since the FY 2002 Adaptive Management Program budget is expected to have a \$1 million shortfall, the budget ad hoc group is developing a list of Adaptive Management Program activities that could be deferred if required. The Adaptive Management Work Group continues to support additional appropriations through the USGS to support scientific monitoring and research and appropriations through all the involved Interior agencies to support tribal government participation and consultation.

Updates from Technical Ad Hoc Groups

The Technical Work Group of the Adaptive Management Work Group has established ad hoc groups to consider new research information related to sediment transport, the need to conduct additional dam release experiments, and the sequencing or prioritization of program activities.

Concern has been raised about current degradation of sediment resources in Grand Canyon National Park. Much of the sediment deposited during the 1996 beach habitat building flow has now eroded. Sediment researchers have proposed several measures to increase the sediment stored in the Grand Canyon, including sediment augmentation. The ad hoc group concurs with the technical conclusions of these researchers, but recommends consideration of several less extreme experimental flow investigations to increase the amount of sediment stored in beaches and channel margin deposits.

In this regard, the experimental flow ad hoc group is working on a program of experimental flows to address the conservation of sediment and the protection of endangered fish and other downstream resources. Examples of these releases might include such high flow events as the 1996 beach habitat building flow (45,000 cfs) or the 1997 habitat maintenance flow (power plant capacity of 31,000 cfs) and comparisons between the 2000 low steady summer flow (8,000 cfs) and normal power plant operations under the Record of Decision. This group expects to complete their work this year, producing a test program for Adaptive Management Work Group consideration.

Future Activities

The Adaptive Management Work Group meeting originally scheduled for July 2001 has been postponed to October 2001 to allow completion of the strategic plan and the proposed 2003 work plan. The Adaptive Management Program continues to meet its obligations under the Record of Decision in advising the Secretary on dam operations and other management actions to protect the resources downstream of Glen Canyon Dam.

If you have comments, suggestions, or questions, you can reach me at (602) 216-3901.

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